

R E P O R T

OF THE

ACTING SUPERINTENDENT

OF THE

YELLOWSTONE NATIONAL PARK

TO THE

SECRETARY OF THE INTERIOR.

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WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
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# REPORT

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OFFICE OF THE SUPERINTENDENT,  
YELLOWSTONE NATIONAL PARK,  
*Mammoth Hot Springs, Wyo., November 1, 1899.*

SIR: I have the honor to submit the following report of the condition of affairs in the Yellowstone National Park from the date of the last report made on September 30, 1898, by Capt. James B. Erwin, Fourth Cavalry. My immediate predecessor as acting superintendent of the park was Capt. W. E. Wilder, Fourth Cavalry, who assumed these duties in March, 1899, and whom I relieved on June 23, 1899, upon his departure for the Philippine Islands. Owing to his short period of service here, no report was made by him.

Early in the year, and before my arrival, the work of improvement in the park was transferred to the Corps of Engineers and placed in charge of Capt. Hiram M. Chittenden. Since that time no funds for this purpose have been disbursed by the acting superintendent, nor has he had anything to do directly with this work, except that important improvements and changes, before being made, are referred to him by the engineer officer in charge, and an agreement between them is arrived at before the work is commenced. The detailed statement of expenditures for all improvements is contained in Captain Chittenden's report to the Chief of Engineers; mine contains only a general statement of what has been done.

I arrived at Fort Yellowstone with Troop M, First Cavalry, June 5, and within two or three days thereafter began relieving the detachments of the Fourth Cavalry stationed throughout the park with men from my own troop. The detachment at Snake River was not relieved until the last of June, owing to the great depth of snow between here and that point.

#### DISPOSITION OF TROOPS.

For the purposes of enforcing the regulations relating to the protection of the natural phenomena of the park from injury and mutilation, to the carrying of firearms, protection from forest fires, and care of the animals, fish, and birds of the park, detachments composed of from three to ten enlisted men were stationed during the summer at the following points, each station being in charge of a noncommissioned officer: Norris Geyser Basin, Lower Geyser Basin, Upper Geyser Basin, The Thumb west side of lake, Lake Station near Lake Hotel, Grand Canyon, Soda Butte, Riverside, Snake River.

A system of mounted patrols is kept up daily from each of these stations, covering approximately 180 miles of road, making the distance traveled each day about 360 miles.

The dispositions for the winter have been modified by abandoning the Thumb and Upper Geyser Basin as stations, changing the number of men at others, and it is my intention to establish within a few days a new station about 10 miles northeast of this point, on the east side of the Yellowstone River, to cover what is known as the Hellroaring country.

The stations mentioned vary in distance from this post from 20 miles, the nearest (Norris Basin), to 90 miles, the farthest (Snake River).

#### METHOD OF PROTECTION.

During the summer patrolling is mainly along the roads traveled by tourists. When the hunting season begins, the country covered by scouts from the different stations is that where the game usually ranges and where poaching would most probably be done. Frequent scouts are made from the permanent stations, and to facilitate this a number of snowshoe cabins have been constructed at about a day's trip apart.

In these cabins a small amount of food is placed at the beginning of the winter, together with bedding, fuel, matches, cooking utensils, etc. These cabins and the supplies contained in them are indispensable, as without them trips of only one day at a time, or at most only two or three days, could be made from the permanent stations, as the travel has to be made on skees and it is impracticable, under these circumstances, to carry bedding or supplies; and such short scouts would leave a large part of the game country entirely unprotected.

The territory to be covered by the detachments of the different stations is described in the appendix to this report.

By reference to the map attached hereto, upon which the location of stations and snowshoe cabins is noted, it will be seen what a large extent of country has to be covered.

In addition to the scouting from outlying stations, frequent trips are made from this post by small detachments, accompanied by the civilian scouts. There are from two to four of these parties out continually during the hunting season.

#### TRAVEL IN THE PARK.

The aggregate number of tourists taking the park trip during the season of 1899 (June 15 to September 15) and stopping at the hotels of the Yellowstone Park Association was 3,637. Of this number the Yellowstone National Park Transportation Company carried from the northern entrance of the park 2,997; and Haynes & Humphrey, from western entrance of the reservation, 414; the remainder—226 people—were bicyclers, or those carried in private transportation.

The total number carried through the park by W. W. Wylie and accommodated at his permanent camps was 975. This number is included under head of "Licensed transportation" in the table below. Mr. Wylie also reports a transient custom at his camps during the season amounting to an equivalent of 1,305 persons for one day.

The aggregate number of persons taking the park trip with licensees of personally conducted camping parties was 703, and the aggregate



number traveling with private transportation (camping parties) was 4,264.

The grand total of all visitors to the park during the season was 9,579.

Three thousand one hundred and six tourists took the trip on the Yellowstone Lake during the season, of which 1,526 came into the park with the regular transportation company; 127 with Humphrey & Haynes, and 1,453 who were traveling with camping parties, 916 of whom were with the Wylie Camping Company.

*Comparison of tourist travel, 1895 to 1899.*

	1895.	1896.	1897.	1898.	1899.
Camping parties.....	2,594	1,797	4,454	3,437	4,264
Licensed transportation.....	374	454	1,354	890	1,678
Yellowstone Park Association hotels.....	2,470	2,408	4,872	2,207	3,637
Total.....	5,438	4,659	10,680	6,534	9,579

#### HOTELS.

The hotels in the park are owned and managed by the Yellowstone Park Association. Mr. J. H. Dean is president of the association. They are thoroughly well kept in every respect, and are models of cleanliness and neatness. No complaint as to their management has come to my notice, nor do I believe any could justly be made.

In addition to the hotels, this association maintains lunch stations at Norris Basin, Upper Basin, and at the Thumb.

The system of hotels should include one at the Upper Geyser Basin. The principal geysers are here, and it is perhaps the most interesting and wonderful point along the whole line of tourist travel. At present this place is visited from Fountain Hotel, at Lower Geyser Basin, distant 9 miles, for which a day is required, and involving an extra travel of 18 miles. An opportunity to see some of the greatest geysers in action is often lost to tourists by their not being able to stay over night here.

#### MEANS OF TRANSPORTATION.

These include two regular stage lines, the Yellowstone National Park Transportation Company, under the management of Mr. S. S. Huntley, the Monida and Yellowstone Stage Company, Humphrey & Haynes, proprietors; the Wylie Camping Company; other licensed transportation in connection with camping privileges, and the Yellowstone Lake Boat Company, E. C. Waters, president.

The Yellowstone National Park Transportation Company runs from Cinnabar, Mont., to Mammoth Hot Springs, thence through the park, making the tour in five days.

The Monida and Yellowstone Stage Company runs from Monida on the Oregon Short Line into the park by way of Riverside Station, and the trip includes the same points of interest as the other line. Both of these lines are thoroughly equipped with the best Concord coaches and harness, have good horses, reliable drivers, and give excellent service.

Mr. W. W. Wylie is licensed to use twenty wagons in connection with his permanent camps, and certain other parties are issued licenses for a number of wagons—not to exceed five for each licensee—to do a

movable camping business. The names of these licensees and the number of wagons so employed are included in the appendix. The teams, vehicles, and drivers employed by Mr. Wylie and the other licensees were adequate for the purpose, and so far as I know gave general satisfaction.

The Yellowstone Lake Boat Company has one steamboat on the lake and makes daily trips from the Thumb to the Lake Hotel, connecting at the Thumb with the stage line coming from the Fountain Hotel and affording such tourists as desire it an opportunity to make the trip from the Thumb to the Lake Hotel by water and obtain a view of the lake. The equipment and management of this boat is satisfactory in every respect.

#### PERMANENT CAMPS.

These are maintained by Mr. Wylie at Appollinaris Spring, Upper Geyser Basin, the Lake, and Grand Canyon, with two lunch stations—one between Appollinaris Spring and Upper Geyser Basin, the other at the Thumb.

That there is a demand for this kind of entertainment is fully indicated by the large number of tourists availing themselves of it during the present season. Inspections of these camps showed them to be comfortable, clean, and well kept, with more conveniences about them than is usually found in camp life.

It is probable that, for sanitary reasons, their locations may have to be changed from time to time.

#### FOREST FIRES.

There have been no fires within the limits of the park during the present year. Notices containing the precautions to guard against fire are posted throughout the park and at all places suitable for camping. As an additional precaution, mounted patrols examine all camps on their line of travel after they are vacated to see that camp fires are extinguished. In a few instances fires have been found in deserted camps, and on two occasions the parties who left them were pursued, arrested, and brought before the United States commissioner for trial.

#### FOREST RESERVES.

I recommend that the necessary legislation be enacted to make the forest reserve bordering on the southern limits of the park a part of the park, and bring it under the provisions of the national park protective act. This is necessary for the better protection of the game in the park. As the matter now stands the superintendent has no authority to prevent hunting in this strip, except when it is done in violation of the game laws of Wyoming.

#### UNITED STATES COMMISSIONER.

The statement of cases tried for violations of the park regulations before Judge John W. Meldrum, United States commissioner, will be found in the appendix.

#### WILD ANIMALS.

*Antelope.*—It is believed they have increased within the last two years. At this season they are nearly all within a few miles of this



post, on the slopes of the foothills where there is little or no snow. About 600 can be seen here nearly every day. There are probably not more than 700 or 800 in the park. It is with the greatest difficulty that they are preserved at all, as they are constantly trying to get across the line and outside of the park limits, where there are numerous hunters watching for an opportunity to shoot them. It requires one of the civilian scouts and two soldiers to be permanently posted along this part of the line to drive them back. As they wander across in the nighttime, these must be on the alert before daybreak to prevent them from being killed. A fence about 4 miles long on this boundary of the park would solve the problem of their protection.

*Bear.*—These are numerous and are without doubt increasing. They are to be seen about the hotels in numbers and have given much trouble at these places by breaking into buildings in search of food. It will undoubtedly be necessary to kill some of them to prevent such destruction.

*Buffalo.*—It is not known how many there are left or whether or not they are increasing. I shall try and find out this winter as to their number. One of the scouts saw twenty-six last spring, and signs were seen of others. It is probable that there are fifty or more.

*Coyotes.*—There are many of these, especially where the antelope are ranging. They undoubtedly kill many antelope, as well as young elk and deer. The only means of getting rid of them is by poison. This method will be tried during the winter.

*Deer.*—There are many of them in the park. They can be seen at this season all about the post, and they frequently come on the parade. They are increasing.

*Elk.*—Are more numerous than any other animal in the park. The scouts frequently report seeing herds of a thousand or more. While a great many died last winter, due to the unusually cold weather, yet they are without doubt rapidly increasing. Some of the scouts, from the number of dead ones seen by them, estimate that as many as 5,000 died during the past winter. It is estimated that there are at present from 35,000 to 60,000 in the park.

*Moose.*—Little is known as to the number of these animals, but there are still quite a number left and they will probably increase now, owing to the stringent laws against killing them in Wyoming. They range principally along the southern line of the park in Wyoming.

*Sheep.*—There are not many in the park, and it is not known as to whether or not they are increasing. Most of them are near here on Mount Everts, and can be seen any day.

*Beaver.*—There are many of these in the park and they are believed to be increasing.

*Mountain lions.*—Are numerous and destroy much game. Several were killed last winter where the mountain sheep range.

#### FISH.

Nearly all streams abound in trout of different varieties. Vast quantities of them are caught during the season without apparently diminishing their number, except in some of the smaller streams. There is probably no place on the face of the earth where the angler can meet with such success as in the Yellowstone Park.

## ROAD WORK.

The early spring work begun with repairs in the road between here and Gardiner. This part of the road was improved by decreasing grades, straightening curves, and erecting guard rails along a precipitous hillside.

Early in June small road crews were sent along the roads to open up the route for tourist travel. It was necessary for them to shovel out the snow nearly the whole distance. The road over the Continental Divide was not opened and ready for travel until June 22, and it was July 5 before the snow finally disappeared from this part of the road.

High water carried away part of the bridge over east fork of the Yellowstone, cutting off my station at Soda Butte. This was promptly repaired.

The snowfall during the past winter was the heaviest ever known in the history of the park, and the consequent high water in the spring called for unusual repairs to roads.

The most important work done was the construction of a new road of about 3 miles between the Golden Gate and Mammoth Hot Springs. The ascent to the Golden Gate has always been one of the heaviest in the park, and to avoid this Captain Chittenden projected this road. It is the best piece of road building in the park, and makes the travel from here to Golden Gate comparatively easy, besides bringing into view many picturesque objects that could not be seen from the old road.

It is intended next summer to abandon the dangerous piece of road on the east side of the Gardiner River and construct a road on the opposite bank. This has been surveyed and a small part of it built, including a steel bridge with concrete abutments, the first of the kind in the park.

Preliminary surveys have been made, locating proposed roads from Mammoth Hot Springs to Yancey's; from the Grand Canyon to Yancey's over Mount Washburn; Yancey's to Soda Butte; Gibbon Canyon to Madison River; Upper Basin to Lone Star Geyser, and Grand Canyon to Norris.

*Statement of funds for improvement and protection of Yellowstone National Park, for fiscal year ending June 30, 1899, covering expenditures and transfers from December 1, 1898, to June 30, 1899.*

Balance on hand November 30, 1898, as per report of acting superintendent, dated November 22, 1898 .....	\$2, 240. 44
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## EXPENDED.

Salaries of scouts .....	\$1, 030. 00
Salary of watchman and clerk for acting superintendent .....	475. 00
Necessary repairs to roads and bridges between Mammoth Hot Springs and Gardiner (to May 1) .....	470. 54
Labor and material finishing profile of proposed new road over south side of Mount Washburn .....	6. 08
Paid for hay for animals in captivity .....	80. 46
For mounting maps of park on linen .....	4. 15
Transferred to Capt. Hiram M. Chittenden, Corps of Engineers, Special Orders, No. 70, Adjutant-General's Office, March 25, 1899 .....	154. 21
Balance transferred to Treasurer United States .....	20. 00
	<hr/> \$2, 240. 44

NOTE.—Actual amount transferred to Captain Chittenden was \$1,581.33, but of this amount, \$1,427.12 was to pay outstanding liabilities as per list furnished him.

*Statement of funds allowed acting superintendent from appropriation for improvement and protection of Yellowstone National Park, fiscal year 1900.*

Amount allowed, as per agreement between Capt. Hiram M. Chittenden, Corps of Engineers, U. S. A., and acting superintendent Yellowstone National Park, dated May 29, 1899, and approved by Secretary of War June 12, 1899 .....		\$4,500.00
Allotted as follows:		
Scouts and detectives .....	\$3,000.00	
Clerk for acting superintendent .....	1,000.00	
Contingencies .....	500.00	
		<u>4,500.00</u>

EXPENDITURES, JULY, AUGUST, AND SEPTEMBER, 1899.

Salaries of scouts .....	\$487.50
Salary of clerk .....	250.00
Paid for hay for elk and deer in captivity .....	15.70
Total .....	<u>753.20</u>
Balance .....	3,746.80
Total .....	<u>4,500.00</u>

*Estimate of funds needed for protection for the coming fiscal year.*

Estimates for this purpose were furnished your office on September 12, and are repeated here for convenient reference.

For scouts and detectives .....	\$3,000.00
For one clerk, office of superintendent, one year .....	1,000.00
Forty tons of hay, at \$14 .....	560.00
Contingencies .....	500.00
Two new stations for troops at detached points .....	1,912.50
Four and one-half miles of fence along north boundary between this post and Gardiner .....	3,250.00
Station house and gate at northern entrance to park .....	1,200.00
Surveying and monumenting boundaries of park, 59 miles, at \$75 .....	4,425.00

The first two items provide for payment of regular scouts and detectives and a clerk for the office of the superintendent. The hay is for elk and deer in captivity. The amount for contingencies is for necessary expenditures that can not be foreseen.

The remaining items have been included in Captain Chittenden's estimates to the Chief of Engineers.

If the appropriation is made for the new stations, it is my intention to establish one in the extreme northwestern corner of the park and the other in the southwest corner. Under the present conditions these sections where there is much game must be protected by the detachments from Riverside and Snake River, respectively, which are too distant to do this efficiently.

The fence estimated for is absolutely necessary for the protection of the antelope and mountain sheep that range during the winter along this part of the north boundary, and will also serve to keep out the large bands of horses and cattle that cross over the line and eat down the grass on the feeding ground of this game. It is next to impossible to keep the antelope from straying across the line, and, as has already been stated, it requires a special detail for this purpose. This matter and the necessity for an entrance gate and station house at the north entrance of the park were fully set forth in the report of Captain Wilder, made to the Department on April 19.



*Marking boundaries.*—There still remains about 59 miles of the park boundary along the north and west that should be marked. It is very important that this should be done, in the interest of protection and to prevent trespasses of other kinds. It frequently happens when hunters are arrested by the scouts within what is understood to be the park lines, the contention is made by them that they were not in the park. It is necessary to testify under oath as to the matter before the commissioner, and when there is any doubt about it of course these witnesses can not so testify, and while it is reasonably certain that the regulations of the park have been violated, the guilty ones escape. As poaching is usually done near the border, this question is liable to come up at any time.

#### PROJECTED IMPROVEMENTS.

The following estimates for improvements have been prepared by Captain Chittenden and included in his report to the Chief of Engineers.

New road in Gardiner Canyon, including three steel bridges.....	\$10,000
Road through Golden Gate Canyon, including a new steel bridge to replace wooden bridge around cliff, and widening road along cliff, the latter all solid rock.....	15,000
Raising 3 miles of road in Gibbon Canyon and cutting out 1 mile of dangerous grades, also opening 4 miles of new road down the Gibbon to connect with western approach.....	16,000
Completion of 8 miles of road near Fountain Hotel.....	8,000
Completion of southern approach along Snake River, 20 miles.....	20,000
New road from West Thumb to Natural Bridge, cutting out present line around lake shore, 8 miles.....	16,000
Surfacing new road from Lake Hotel to Grand Canyon, 15 miles.....	15,000
New bridge across the Yellowstone near the falls.....	20,000
New road down right bank of Grand Canyon, 3 miles.....	6,000
New road near Grand Canyon, to cut out dangerous hills.....	5,000
New road, Canyon to Norris, 10 miles.....	20,000
New road, Grand Canyon, via Tower Falls, to Mammoth Hot Springs, 36 miles.....	72,000
New bridge over Yellowstone near Tower Falls.....	10,000
New bridge over Lamar River.....	5,000
Completion of east approach, 15 miles.....	15,000
New plant.....	5,000
New office and other buildings.....	5,000
Current repairs and maintenance for season of 1900.....	10,000
New bridges at various points (six needed at once).....	12,000
Office, transportation, and miscellaneous expenses.....	10,000
There should also be added for clearing out and rendering more easily passable the numerous trails throughout the park, which are essential to its proper police and protection.....	5,000

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Total for completion of project in a single season.....\$300,000

I have gone over these estimates very carefully with Captain Chittenden and fully approve of them. This work will have to be done at some time, and Captain Chittenden estimates that it would cost about one-half to have one appropriation cover the whole. The amount appears large when compared with the usual annual appropriation, but in the end it would be a measure of economy for the Government to appropriate all at once, so that a systematic plan of work might be adopted and carried out. The result would be to make travel easy and safe, and bring almost every point of interest of the park in the line of tourist travel. After this work is completed the cost of maintenance would probably not amount to more than half of the present

annual appropriation, and a part of this could be used for macadamizing a few miles of road each year.

Whether the total amount required for this work is obtained or not, there are certain items for which the Department should make every effort to get appropriations. The more important are as follows:

Fifteen thousand dollars for new steel bridge in Golden Gate Canyon. This is absolutely necessary for safety. I do not consider the present bridge safe for another season's travel, and if upon careful examination in the spring it is not found to be so I shall have to prohibit any passage across it. This would stop all travel in the park as there is no other way of getting through. This bridge is of wood, fastened to the side of a precipitous cliff with wooden supports below, and has been in use several years.

Sixteen thousand dollars for road in Gardiner Canyon. This road runs at the base of a mountain, the side of which, next to the road, is composed of loose earth and an easily disintegrated stone that from time to time break away and fall into the road making travel along it at certain seasons dangerous. This change should be made in the interest of safety.

Twenty thousand dollars for new road from Grand Canyon to Norris. This road should be changed to avoid an extremely steep declivity with an abrupt turn at the foot which makes it dangerous.

Five thousand dollars for bridge over Lamar River. The old bridge here washes out every spring, cutting off the Soda Butte Station and isolating an important part of the park.

Twenty thousand dollars for new bridge across the Yellowstone near the upper falls. This bridge should be built both as a means of protection and for the opening up of the east side of the river to tourists. The means of getting to the other side, where much of the game ranges, is to cross on the ice in the winter and to ford it at shallow points in the summer. It is late in the winter before this can be done on the ice. During high water it is impossible to ford anywhere, and it is late in the summer and at only a few points where this can be done at all.

The park is unquestionably fulfilling the purposes for which it was set aside by the Government. It has been visited by about 10,000 tourists this year from every part of the United States and from foreign countries. As its natural wonders and picturesque beauties become more widely known these numbers will undoubtedly increase. As a game preserve it is probably the greatest in the world, and as the game disappears from the country surrounding it and other points of the West its value will be conspicuous as the breeding ground and refuge of the wild fauna of our country.

To properly protect this extensive area and enforce compliance with the many regulations for its government requires more troops than the number now stationed here, but it is well understood that under the present conditions no more are available for this duty. The majority of the men of the command were newly enlisted and had hardly passed the recruit stage at the time they were sent out to the different stations. It is but just to them to state that the important duties they were charged with have been performed with commendable prudence and efficiency, and it is believed that the care and condition of the park this season will compare favorably with those at any period of its history.



The work of the civilian scouts for the past season, as shown by the diaries kept by them and on file in my office, is a story of a vast amount of difficult country traversed under all conditions of weather, involving much labor and in some cases actual hardship. Their services have been most valuable in the protection of game.

Very respectfully,

OSCAR J. BROWN,  
*Captain, First Cavalry, Acting Superintendent.*

The SECRETARY OF THE INTERIOR,  
Washington, D. C.

#### APPENDIX A.

### INSTRUCTIONS FOR WINTER PATROLLING.

#### NORRIS STATION.

East: Up Gibbon River to Grebe Lake.

Northwest: To Christmas Tree Park.

South: To Canyon Creek.

#### FOUNTAIN STATION.

East: To Nez Perce Creek and scout foothills of Marys Mountain.

Southwest: Around Twin Buttes and Fairy Falls.

North: To Gibbon Falls, meeting scouts from Norris.

South: By the way of Upper Geyser Basin to Shoshone Lake by the way of Lone Star Geyser.

#### RIVERSIDE STATION.

North: Along west boundary as far as Grayling Creek; up Grayling Creek to the vicinity of Three River Peaks; along foothills by White Peaks; down Maple Creek and Duck Creek to Cougar Creek, thence to station.

South: Over Madison Plateau for a distance of 10 or 12 miles, thence back to station. Patrol up the Madison River to forks of Gibbon and Madison.

#### SNAKE RIVER STATION.

West: To Fall River Meadows; to Boundary Creek Cabin, taking in cabins at Proposition Creek and Bartlett Cabin.

East: As far as Snowshoe Cabin, on Coulter Creek; thence north to Heart Lake; around through Heart Lake Geyser Basin to Lewis River Cabin; thence south to home station.

#### LAKE STATION.

East: Across the Yellowstone to Astringent Creek Cabin; thence south by Turbid Lake, along east side of lake to Snowshoe Cabin, at Park Point on the lake; along southeast arm of lake to cabin on Trappers Creek, scouting Upper Yellowstone country from this point to boundary.

#### CANYON STATION.

South: To Mud Geyser; thence west to Marys Lake and to Trout Creek Cabin, returning by Alum Creek.

East: Across Yellowstone River, through the Sour Creek country to Fern and White lakes and the country about the hot springs near these lakes; thence to Astringent Creek Cabin, and along Pelican Creek to Lake Station; thence to home station.

#### SODA BUTTE STATION.

North: Soda Butte Creek and Pebble Creek to park boundary.

South: Up Lamar River to Willow Creek Cabin, scouting up Miller and Cache creeks to east boundary of park. Mirror Plateau to December 1.

Northwest: Slough Creek and Buffalo Fork of Slough Creek to boundary line, thence west along northern boundary to Hellroaring Creek Cabin.

This is an outline of the territory to be covered by the detachments at the respective stations, but whenever necessary these limits may be extended.

Scouting parties will avoid the regular trails as far as possible; will not habitually go in the same direction, and will vary this work as much as the character of the country will allow.

OSCAR J. BROWN,  
*Captain, First Cavalry, Acting Superintendent.*

#### APPENDIX B.

*List of parties holding license to conduct camping business.*

No.	Name.	Residence.	Number of vehicles.	Duration.
1	Marshall Bros.....	Livingston, Mont.....	1	June 1 to Oct. 1, 1899.
2	A. W. Chadbourne.....	Cinnabar, Mont.....	4	Do.
3	C. C. Chadbourne.....	do.....	3	Do.
4	Erwin Clark Sandy.....	do.....	3	Do.
5	C. T. Smith.....	do.....	3	Do.
6	Frank Halem.....	do.....	2	Do.
7	Adam Gassert.....	do.....	3	Do.
8	W. J. Kupper.....	do.....	2	Do.
9	Henry George.....	do.....	3	Do.
10	J. W. Taylor.....	do.....	3	Do.
11	H. M. Gore.....	do.....	3	Do.
12	Capt. Amos Shaw.....	Livingston, Mont.....	5	Do.
13	Marshall Bros.....	do.....	4	June 15 to Oct. 1, 1899.
14	R. H. Menefee.....	Cinnabar, Mont.....	2	Do.
15	Alfred Lyman.....	Bozeman, Mont.....	19	June 24 to Oct. 1, 1899.
16	W. S. Dixon.....	Livingston, Mont.....	1	July 5 to Oct. 1, 1899.
17	B. S. Thresher.....	Butte, Mont.....	3	July 7 to Oct. 1, 1899.
18	J. V. & S. S. Blankenship.....	Bozeman, Mont.....	17	July 8 to Oct. 1, 1899.
19	P. B. Cobb.....	do.....	4	July 28 to Oct. 1, 1899.
20	Albert Hill.....	Wells, Wyo.....	3	Aug. 1 to Oct. 1, 1899.
21	C. C. Chadbourne.....	Cinnabar, Mont.....	1	Aug. 4 to Oct. 1, 1899.
22	Ed. Staley.....	Lake, Idaho.....	3	Aug. 7 to Oct. 1, 1899.
23	John Dewing.....	Gardiner, Mont.....	2	Aug. 12 to Oct. 1, 1899.
24	Frank Sebastian.....	Elk, Wyo.....	1	Aug. 18 to Oct. 1, 1899.
25	B. D. Sheffield.....	Livingston, Mont.....	2	Aug. 22 to Oct. 1, 1899.
26	Geo. W. Reese.....	Cinnabar, Mont.....	1	Aug. 21 to Oct. 1, 1899.

<sup>1</sup> All in excess of five wagons were for baggage.

#### APPENDIX D.

STATEMENT OF CASES BROUGHT BEFORE HON. JOHN W. MELDRUM, UNITED STATES COMMISSIONER, SINCE THE 1ST DAY OF SEPTEMBER, 1898.

*September 29.*—United States *v.* Horace Stockwell. Charge: Violation of the provisions of the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park, and to punish crimes in said park, and for other purposes." Defendant ordered to pay costs.

*December 2.*—United States *v.* Alexander Stewart. Charge: Violation of the provisions of the act of Congress approved May 7, 1894. Defendant ordered to pay a fine of \$10.

*December 13.*—United States *v.* Henry Jenkins and Charles Steed. Charge: Violation of the provisions of the act of Congress approved May 7, 1894.

The original warrant herein was returned on the 17th day of January, 1899, "not served." Defendants not found within the district of Wyoming. The papers in the case have been transmitted to the United States attorney for the district of Idaho, with request that he cause such action to be taken as will place the defendants within the jurisdiction of the authorities of the district of Wyoming. No report of arrest has yet been received from the authorities of the district of Idaho.

*February 1.*—United States *v.* A. K. Crawford. Charge: Violation of the provisions of the act of Congress approved May 7, 1894. Defendant ordered to pay a fine of \$50 and costs.

The complaint in this case was entered on the 12th day of July, 1898, and original warrant returned "not served." Defendant was subsequently arrested within the district of Montana, and was brought before the commissioner, by virtue of an order of removal issued by the Hon. Hiram Knowles, United States judge for said district.

*June 7.*—United States *v.* Margaret Gleason Trischman. Charge: Murder. Defendant held to United States district court for the district of Wyoming.

*July 12.*—United States *v.* John Jacobson. Charge: Violation of the provisions of the act of Congress approved May 7, 1894. Defendant ordered to pay a fine of \$10.

*July 13.*—United States *v.* Thomas Murchie. Charge: Violation of the provisions of the act of Congress approved May 7, 1894. Defendant committed to post guard-house, Fort Yellowstone, Wyo., for the period of twenty days.

*August 26.*—United States *v.* Washington Jones. Charge: Violation of the provisions of the act of Congress approved May 7, 1894. Defendant ordered to pay costs.

*September 25.*—United States *v.* G. P. Hitchcock. Charge: Violation of the provisions of the act of Congress approved May 7, 1894. Defendant ordered to pay costs.

#### APPENDIX E.

##### *List of registered guides.*

No.	Guide.	Residence.	Number of animals.	Duration.
1	B. D. Sheffield .....	Livingston, Mont. ....	40	July 1 to Dec. 1, 1899.
2	Henry George .....	Cinnabar, Mont. ....	20	June 27 to Dec. 1, 1899.
3	E. Hofer .....	Gardiner, Mont. ....	40	July 1 to Dec. 1, 1899.
4	W. T. Hall .....	do .....	20	Do.
5	Wm. Wells .....	Wells, Wyo. ....	25	July 28 to Dec. 1, 1899.
6	Ed. Staley .....	Lake, Idaho .....	40	Aug. 7 to Dec. 1, 1899.
7	C. L. Ryerson .....	Gardiner, Mont. ....	30	Aug. 8 to Dec. 1, 1899.
8	G. M. Leatherman .....	do .....	40	Aug. 11 to Dec. 1, 1899.
9	John Dewing .....	do .....	15	Aug. 12 to Dec. 1, 1899.
10	Frank Sebastian .....	Elk, Wyo. ....	30	Aug. 18 to Dec. 1, 1899.
11	Geo. W. Reese .....	Cinnabar, Mont. ....	30	Aug. 22 to Dec. 1, 1899.
12	E. C. Alderson .....	Bozeman, Mont. ....	20	Aug. 23 to Dec. 1, 1899.

## APPENDIX F.

## METEOROLOGICAL REGISTER, FORT YELLOWSTONE, WYO.

SEPTEMBER, 1898.						OCTOBER, 1898.						NOVEMBER, 1898.								
Date.	Maximum.	Minimum.	Range.	Winds.	Precipita- tion.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipita- tion.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipita- tion.	Remarks.
1.....	74	42	32	SW.	0.25	Rain.	1.....	34	29	5	N.	0.10	Snow.	1.....	36	21	15	SW.	.....	
2.....	56	46	10	NW.	.....		2.....	33	20	13	N.	.....	Snow.	2.....	41	29	12	SW.	.....	Show.
3.....	56	34	22	NW.	.....		3.....	38	20	18	N.	.20	Snow.	3.....	36	32	4	SW.	.....	0.25
4.....	63	35	28	SW.	.....		4.....	42	19	23	NW.	.....		4.....	49	32	17	NW.	.....	.10
5.....	61	34	27	NW.	.....		5.....	47	21	26	NW.	.10	Snow.	5.....	44	26	18	SW.	.....	
6.....	60	25	35	NW.	.....		6.....	45	29	16	N.	.....		6.....	52	32	20	SW.	.....	
7.....	70	30	40	NW.	.....		7.....	56	26	30	SW.	.....		7.....	44	17	27	W.	.....	
8.....	65	35	30	NW.	.....		8.....	67	28	39	NW.	.....		8.....	24	4	20	NW.	.....	
9.....	55	34	21	NW.	.....		9.....	51	37	14	SW.	.....		9.....	29	8	26	SW.	.....	
10.....	64	25	39	NW.	.....		10.....	47	30	17	SW.	.....		10.....	33	18	15	SW.	.....	
11.....	73	29	44	SW.	.....		11.....	45	32	13	SW.	.....		11.....	31	15	18	W.	.....	Show.
12.....	73	37	36	NW.	.....		12.....	46	31	15	SW.	.....		12.....	30	12	18	NW.	.....	
13.....	69	34	35	NW.	.....		13.....	53	30	23	SW.	.....		13.....	29	8	21	NW.	.....	
14.....	76	38	28	SW.	.....		14.....	55	37	18	SW.	.....		14.....	41	9	32	SW.	.....	
15.....	58	36	22	NW.	.....		15.....	40	27	13	N.	.10	Snow.	15.....	39	23	16	SW.	.....	
16.....	72	32	40	NW.	.....		16.....	37	19	18	SW.	.....		16.....	35	22	13	SW.	.....	.05
17.....	79	44	35	SW.	.....		17.....	44	18	26	NW.	.....		17.....	36	22	14	SW.	.....	.05
18.....	84	44	40	SW.	.....		18.....	43	27	16	NW.	.....		18.....	42	30	12	SW.	.....	.10
19.....	85	40	45	SW.	.....		19.....	31	24	10	NW.	.20	Snow.	19.....	43	34	9	N.E.	.....	.20
20.....	77	47	30	SW.	.....		20.....	42	13	29	W.	.....		20.....	32	5	37	N.	.....	.33
21.....	71	39	32	W.	.....		21.....	54	29	25	SW.	.....		21.....	15	13	28	S.	.....	
22.....	62	47	15	S.	.....		22.....	59	34	25	S.	.....		22.....	20	11	9	S.	.....	
23.....	58	35	23	S.	.15	Rain.	23.....	53	31	22	N.	.35	Snow.	23.....	29	15	14	S.	.....	
24.....	74	34	40	S.	.....		24.....	37	24	13	SW.	.15	Snow.	24.....	25	9	16	SW.	.....	
25.....	80	43	37	S.	.....		25.....	47	20	27	SW.	.....		25.....	30	10	20	SW.	.....	
26.....	81	39	42	S.	.....		26.....	42	26	16	SW.	.....		26.....	35	8	27	W.	.....	
27.....	73	47	26	S.	.50	Rain.	27.....	41	31	10	SW.	.....		27.....	32	13	19	S.	.....	.05
28.....	51	38	13	S.E.	.....		28.....	39	29	10	NW.	.15	Snow.	28.....	34	17	17	S.	.....	.20
29.....	45	30	15	SW.	.....		29.....	47	12	35	SW.	.....		29.....	25	15	10	SW.	.....	.20
30.....	49	32	17	NW.	.....		30.....	56	26	30	SW.	.....		30.....	25	15	10	SW.	.....	
31.....	.....	.....	.....	.....	.....		31.....	47	34	13	SW.	.10	Snow.	31.....	30	18	12	S.	.....	
Total	2,014	1,104	933	.....	.90		Total	1,421	813	608	.....	2.25		Total	1,021	478	543	.....	1.55	
Mean	67.13	36.80	31.10	NW.	.....		Mean	45.84	26.23	19.61	SW.	.....		Mean	34.03	15.93	18.10	SW.	.....	
Maximum, 85° on 19th instant; minimum, 25° on 6th instant; mean, 51.97°; total precipitation, 0.90 inch; prevailing winds, northwest.							Maximum, 67° on 8th instant; minimum, 12° on 29th instant; mean, 36.64°; total precipitation, 2.25 inches; prevailing winds, southwest.							Maximum, 52° on 6th instant; minimum, 4° on 8th instant; mean, 24.38°; total precipitation, 1.55 inches; prevailing winds, southwest.						



## METEOROLOGICAL REGISTER, FORT YELLOWSTONE, WYO.—Continued.

DECEMBER, 1898.							JANUARY, 1899.							FEBRUARY, 1899.						
Date.	Maximum.	Minimum.	Range.	Winds.	Precipita- tion.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipita- tion.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipita- tion.	Remarks.
1.....	31	20	11	SW.	.....	Snow.	1.....	25	2	23	S.	0.10	Snow.	1.....	-10	-23	13	N.	0.30	Snow.
2.....	33	17	16	N.	0.05	.....	2.....	28	20	8	S.	.15	Snow.	2.....	-18	-33	15	N.	.30	Snow.
3.....	19	1	20	N.	.....	.....	3.....	29	12	17	S.	.30	Snow.	3.....	-19	-35	16	N.	.....	.....
4.....	31	9	22	S.	.....	.....	4.....	15	-3	18	S.	.....	.....	4.....	-4	-29	25	N.	.....	.....
5.....	28	14	14	N.	.10	Snow.	5.....	13	1	12	S.	Trace	.....	5.....	-9	-28	19	S.	.....	.....
6.....	21	2	23	S.	.....	.....	6.....	12	-8	20	S.	.....	.....	6.....	-3	-22	19	S.	.....	.....
7.....	24	4	16	N.	.07	Snow.	7.....	23	1	24	S.	.....	.....	7.....	7	9	11	S.	.20	Snow.
8.....	18	2	20	NW.	.....	.....	8.....	25	7	18	SE.	.....	.....	8.....	18	7	11	S.	.20	Snow.
9.....	9	15	24	NW.	.....	.....	9.....	21	9	12	SE.	.....	.....	9.....	31	15	16	S.	.40	Snow.
10.....	16	5	21	NW.	.....	.....	10.....	30	12	18	S.	Trace	.....	10.....	29	-10	39	N.	.30	Snow.
11.....	23	0	23	NW.	.....	.....	11.....	32	23	9	S.	Trace	.....	11.....	24	-2	26	N.	.20	Snow.
12.....	26	5	21	W.	.....	.....	12.....	29	21	8	SW.	Trace	.....	12.....	22	-12	34	S.	.....	.....
13.....	28	0	28	SW.	.....	.....	13.....	28	10	18	S.	Trace	.....	13.....	23	-16	13	S.	.....	.....
14.....	27	4	23	SW.	.....	.....	14.....	24	16	8	S.	.10	Snow.	14.....	32	18	14	SW.	.05	Snow.
15.....	30	14	16	SW.	.....	.....	15.....	31	17	14	SW.	.05	Snow.	15.....	32	25	7	NW.	.....	.....
16.....	29	10	19	SW.	.....	.....	16.....	36	27	9	NW.	.05	Snow.	16.....	34	20	14	W.	.....	.....
17.....	34	15	19	SW.	.....	.....	17.....	35	24	11	SW.	.10	Snow.	17.....	28	18	10	SW.	.10	Snow.
18.....	36	18	18	S.	.....	.....	18.....	40	24	16	SW.	.05	Snow.	18.....	36	17	19	S.	.30	Snow.
19.....	31	26	8	SW.	.....	.....	19.....	34	20	14	S.	.....	.....	19.....	43	23	20	SW.	.....	.....
20.....	31	20	11	SW.	.....	.....	20.....	33	23	10	S.	.....	.....	20.....	39	22	17	NW.	.....	.....
21.....	25	12	14	W.	.05	Snow.	21.....	38	29	9	SW.	.13	Snow.	21.....	26	-1	27	NW.	.30	Snow.
22.....	24	14	10	NW.	.....	.....	22.....	34	18	16	NW.	.....	.....	22.....	26	-1	27	W.	.05	Snow.
23.....	18	3	15	SW.	.05	Snow.	23.....	32	15	17	S.	.02	Snow.	23.....	31	4	27	W.	.....	.....
24.....	20	14	12	S.	.....	.....	24.....	32	17	15	W.	.50	Snow.	24.....	29	11	18	S.	.....	.....
25.....	31	18	13	S.	.....	.....	25.....	32	17	15	W.	.....	.....	25.....	30	7	23	S.	.20	Snow.
26.....	36	27	9	S.	.....	.....	26.....	34	23	11	W.	.....	.....	26.....	23	-3	26	S.	.10	Snow.
27.....	37	31	6	N.	.20	Snow.	27.....	34	16	18	S.	.70	Snow.	27.....	27	17	10	NW.	.30	Snow.
28.....	32	4	28	N.	.05	Snow.	28.....	30	12	18	W.	.30	Snow.	28.....	27	10	17	S.	.10	Snow.
29.....	31	5	26	N.	.10	Snow.	29.....	40	13	27	S.	.30	Snow.	29.....	34	12	22	S.	.....	.....
30.....	9	5	4	N.	.....	.....	30.....	28	1	27	N.	.....	.....	Total.	567	38	529	.....	3.40	.....
31.....	8	10	18	S.	.....	.....	31.....	13	-11	24	N.	1.40	Snow.	Mean.	20.25	1.35	18.90	S.	.....	.....
Total.	802	264	538	.....	.67	.....	Total.	878	389	489	.....	4.21	.....	.....	.....	.....	.....	.....	.....	.....
Mean.	25.87	8.52	17.35	SW.	.....	.....	Mean.	28.32	12.55	15.77	S.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maximum, 37° on 27th instant; minimum, 1° on 3d instant; mean, 17.20°; total precipitation, 0.67 inch; prevailing winds, southwest.							Maximum, 40° on 18th instant; minimum, -11° on 31st instant; mean, 15.43°; total precipitation, 4.21 inches; prevailing winds, south.							Maximum, 43° on 19th instant; minimum, -35° on 3d instant; mean, 10.75°; total precipitation, 3.40 inches; prevailing winds, south.						

Maximum, 37° on 27th instant; minimum, 1° on 3d instant; mean, 17.29°; total precipitation, 0.67 inch; prevailing winds, southwest.

Maximum, 40° on 18th instant; minimum, -11° on 31st instant; mean, 15.43°; total precipitation, 4.21 inches; prevailing winds, south.

Maximum, 43° on 19th instant; minimum, -35° on 3d instant; mean, 10.75°; total precipitation, 3.40 inches; prevailing winds, south.



MARCH, 1899.

APRIL, 1899.

MAY, 1899.

Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.
1.....	36	21	15	S.	0.10	Snow.	1.....	39	23	16	N.	0.60	Snow.
2.....	36	21	15	S.	.20	Snow.	2.....	24	19	5	N.	.....	.....
3.....	31	6	25	S.	.40	Snow.	3.....	37	15	22	N.	.....	.....
4.....	30	16	14	SW.	.....	.....	4.....	47	24	23	S.	.....	.....
5.....	30	3	27	SW.	.....	.....	5.....	55	29	26	S.	.....	.....
6.....	37	21	16	S.	.....	.....	6.....	61	28	33	N.	.....	.....
7.....	49	32	17	SW.	.....	.....	7.....	62	32	30	NW.	.....	.....
8.....	43	32	11	SW.	.....	.....	8.....	60	33	27	NW.	.....	.....
9.....	39	24	15	NW.	.20	Snow.	9.....	57	38	19	NW.	.12	Rain.
10.....	26	14	12	NW.	.....	.....	10.....	60	33	27	W.	.35	Rain.
11.....	30	3	27	SW.	.....	.....	11.....	63	47	16	S.	.....	.....
12.....	30	16	14	S.	.....	.....	12.....	54	27	27	S.	.....	.....
13.....	31	17	14	S.	.....	.....	13.....	50	30	20	S.	.....	.....
14.....	26	6	20	N.	.10	Snow.	14.....	43	34	9	S.	.04	Rain.
15.....	32	3	35	S.	.40	Snow.	15.....	43	32	11	SW.	.25	Rain.
16.....	32	14	18	S.	.40	Snow.	16.....	45	31	14	SW.	.05	Rain.
17.....	27	10	17	WS.	.....	.....	17.....	53	29	24	S.	.....	.....
18.....	28	3	25	S.	.....	.....	18.....	59	35	24	S.	.....	.....
19.....	36	25	11	S.	.05	Snow.	19.....	50	40	10	S.	.10	Rain.
20.....	38	28	10	S.	.05	Snow.	20.....	43	36	7	N.	.05	Rain.
21.....	33	1	32	S.	.20	Snow.	21.....	44	33	11	N.	.....	.....
22.....	25	10	15	SW.	.....	.....	22.....	48	31	17	S.	.03	Rain.
23.....	39	20	19	S.	.50	Rain.	23.....	67	34	33	S.	.....	.....
24.....	45	35	10	SW.	.....	.....	24.....	71	36	35	S.	.....	.....
25.....	42	16	26	N.	.....	.....	25.....	65	36	29	S.	.15	Rain.
26.....	18	2	20	N.	.....	.....	26.....	59	34	25	S.	.20	Rain.
27.....	19	10	29	N.	.....	.....	27.....	57	30	27	W.	.15	Rain.
28.....	33	14	19	S.	.....	.....	28.....	56	37	19	W.	.33	Rain.
29.....	37	24	13	N.	.40	Snow.	29.....	58	39	19	S.	.05	Rain.
30.....	31	1	30	N.	.....	.....	30.....	51	34	17	W.	.....	.....
31.....	28	5	33	N.	.....	.....	31.....	56	33	23	W.	.....	.....
Total.	1,017	413	604	S.	3.00	.....	Total.	1,637	992	645	S.	2.52	.....
Mean.	32.81	13.32	19.48	.....	.....	.....	Mean.	52.81	32.00	20.81	.....	.....	.....

Maximum, 49° on 7th instant; minimum, -10° on 27th instant; mean, 23.07°; total precipitation, 3 inches; prevailing winds, south.

Maximum, 60° on 25th instant; minimum, 10° on 1st instant; mean, 35.74°; total precipitation, 2.30 inches; prevailing winds, south.

Maximum, 71° on 24th instant; minimum, 15° on 3d instant; mean, 42.40°; total precipitation, 2.52 inches; prevailing winds, south.

## METEOROLOGICAL REGISTER, FORT YELLOWSTONE, WYO.—Continued.

JUNE, 1899.						JULY, 1899.						AUGUST, 1899.									
Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.	
1.....	59	38	21	N.	0.08	Rain.	1.....	76	37	39	SW.	.....		1.....	76	39	37	S.	.....		
2.....	55	40	15	N.	.....	Rain.	2.....	74	40	34	NW.	.....		2.....	75	40	35	S.	.....		
3.....	60	42	18	NW.	.....	Rain.	3.....	71	44	27	NW.	.....		3.....	78	41	37	S.	.....		
4.....	55	36	19	W.	.....	Rain.	4.....	75	49	26	NW.	.....		4.....	75	49	26	S.	.....		
5.....	50	30	20	N.	.....	Rain.	5.....	70	44	26	NW.	.....		5.....	74	45	29	S.	.....		
6.....	46	26	20	SW.	.....	Snow.	6.....	79	40	39	W.	.....		6.....	74	45	29	W.	.....		
7.....	50	32	18	N.	.....	Rain.	7.....	84	45	39	W.	0.05	Rain.	7.....	69	50	19	NW.	0.16	Rain.	
8.....	59	33	26	S.	.....		8.....	82	43	39	SW.	.....		8.....	67	48	19	N.	.....	0.08	Rain.
9.....	67	33	34	S.	.....		9.....	84	46	38	W.	.....		9.....	65	44	21	N.	.....	0.30	Rain.
10.....	65	46	19	N.	.....	Rain.	10.....	86	47	39	S.	.....		10.....	65	43	22	N.	.....	0.70	Rain.
11.....	63	45	18	N.	.....	Rain.	11.....	81	55	26	SW.	.....		11.....	78	37	41	W.	.....		
12.....	57	33	24	NW.	.....	Rain.	12.....	79	47	32	SW.	.....		12.....	77	40	37	S.	.....		
13.....	59	37	22	W.	.....	Rain.	13.....	71	49	22	NW.	.....		13.....	77	45	32	S.	.....		
14.....	59	33	26	SW.	.....		14.....	74	46	28	NW.	.....		14.....	83	45	38	S.	.....		
15.....	69	34	35	W.	.....		15.....	74	41	33	NW.	.....		15.....	70	40	30	E.	.....		
16.....	76	40	36	SW.	.....		16.....	75	44	31	W.	.....		16.....	71	37	34	NW.	.....	0.08	Rain.
17.....	82	49	33	S.	.....		17.....	80	44	36	W.	.....		17.....	68	42	26	W.	.....	0.09	Rain.
18.....	81	48	33	S.	.....	Rain.	18.....	86	47	39	W.	.....		18.....	73	37	36	W.	.....	0.45	Rain.
19.....	76	55	21	NW.	.....	Rain.	19.....	88	49	39	S.	.....		19.....	67	41	26	NW.	.....		
20.....	64	48	16	N.	.....	Rain.	20.....	88	54	34	S.	.....		20.....	78	44	34	W.	.....		
21.....	56	35	21	N.	.....		21.....	80	51	29	SW.	.....		21.....	61	42	19	N.	.....		
22.....	64	32	32	NW.	.....		22.....	75	52	23	W.	.....		22.....	52	34	18	N.	.....	0.02	Rain.
23.....	71	33	38	S.	.....		23.....	71	34	37	SW.	.....		23.....	58	35	23	N.	.....		
24.....	77	39	38	SW.	.....		24.....	79	41	38	S.	.....		24.....	69	38	31	N.	.....		
25.....	77	47	30	SW.	.....		25.....	76	50	26	NW.	.....		25.....	75	42	33	N.	.....		
26.....	69	42	27	SW.	.....		26.....	72	50	22	NW.	.....		26.....	73	47	26	W.	.....		
27.....	71	42	29	S.	.....		27.....	76	46	30	NW.	.....		27.....	75	43	32	SW.	.....		
28.....	81	45	36	S.	.....		28.....	71	46	25	NW.	.....		28.....	77	42	35	S.	.....		
29.....	82	52	30	S.	.....		29.....	80	41	39	NW.	.....		29.....	78	47	31	S.	.....		
30.....	74	51	23	NW.	.....		30.....	78	41	37	NW.	.....		30.....	77	38	39	S.	.....		
31.....	74	51	23	NW.	.....		31.....	63	45	18	NW.	.....		31.....	80	45	35	S.	.....		
Total.	1,974	1,206	768	.....	1.90		Total.	2,398	1,408	990	.....	1.42		Total.	2,229	1,303	926	.....	2.23		
Mean.	63.33	38.50	24.83	N.	.....		Mean.	77.36	45.42	31.94	NW.	.....		Mean.	71.90	42.63	29.87	S.	.....		

Maximum, 82° on 17th instant; minimum, 26° on 6th instant; mean, 50.92°; total precipitation, 1.90 inches; prevailing winds, north.

Maximum, 88° on 19th instant; minimum, 31° on 23d instant; mean, 61.39°; total precipitation, 1.42 inches; prevailing winds, northwest.

Maximum, 83° on 14th instant; minimum, 34° on 22d instant; mean, 56.96°; total precipitation, 2.23 inches; prevailing winds, south.

Maximum, 82° on 17th instant; minimum, 26° on 6th instant; mean, 50.92°; total precipitation, 1.90 inches; prevailing winds, north.

Maximum, 88° on 19th instant; minimum, 34° on 23d instant; mean, 61.39°; total precipitation, 1.42 inches; prevailing winds, northwest.

Maximum, 88° on 14th instant; minimum, 34° on 22d instant; mean, 56.96°; total precipitation, 2.23 inches; prevailing winds, south.

## APPENDIX G.

## RULES AND REGULATIONS OF THE YELLOWSTONE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,  
*Washington, D. C., April 1, 1899.*

The following rules and regulations for the government of the Yellowstone National Park are hereby established and made public pursuant to authority conferred by section 2475, Revised Statutes United States, and the act of Congress approved May 7, 1894:

(1) It is forbidden to remove or injure the sediments or incrustations around the geysers, hot springs, or steam vents; or to deface the same by written inscription or otherwise; or to throw any substance into the springs or geyser vents; or to injure or disturb in any manner or to carry off any of the mineral deposits, specimens, natural curiosities, or wonders within the park.

(2) It is forbidden to ride or drive upon any of the geyser or hot spring formations or to turn loose stock to graze in their vicinity.

(3) It is forbidden to cut or injure any growing timber. Camping parties will be allowed to use dead or fallen timber for fuel.

(4) Fires shall be lighted only when necessary, and completely extinguished when not longer required. The utmost care should be exercised at all times to avoid setting fire to the timber and grass, and anyone failing to comply therewith shall be peremptorily removed from the park.

(5) Hunting or killing, wounding, or capturing of any bird or wild animal, except dangerous animals, when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed in the park under other circumstances than prescribed above, will be forfeited to the United States, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation and the actual owner thereof was not a party to such violation. Firearms will only be permitted in the park on written permission from the superintendent thereof. On arrival at the first station of the park guard, parties having firearms will turn them over to the sergeant in charge of the station, taking his receipt for them. They will be returned to the owners on leaving the park.

(6) Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line, is prohibited. Fishing for purposes of merchandise or profit is forbidden by law. Fishing may be prohibited by order of the superintendent of the park in any of the waters of the park, or limited therein to any specified season of the year, until otherwise ordered by the Secretary of the Interior.

(7) No person will be permitted to reside permanently or to engage in any business in the park without permission, in writing, from the Department of the Interior. The superintendent may grant authority to competent persons to act as guides and revoke the same in his discretion, and no pack trains shall be allowed in the park unless in charge of a duly registered guide.

(8) The herding or grazing of loose stock or cattle of any kind within the park, as well as the driving of such stock or cattle over the roads of the park, is strictly forbidden, except in such cases where authority therefor is granted by the Secretary of the Interior.

(9) No drinking saloon or barroom will be permitted within the limits of the park.

(10) Private notices or advertisements shall not be posted or displayed within the park, except such as may be necessary for the convenience and guidance of the public, upon buildings on leased ground.

(11) Persons who render themselves obnoxious by disorderly conduct or bad behavior, or who violate any of the foregoing rules, will be summarily removed from the park, and will not be allowed to return without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

Any person who violates any of the foregoing regulations will be deemed guilty of a misdemeanor, and be subjected to a fine as provided by the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park, and to punish crimes in said park, and for other purposes," of not more than \$1,000, or imprisonment not exceeding two years, or both, and be adjudged to pay all costs of the proceedings.

E. A. HITCHCOCK,  
*Secretary of the Interior.*



## APPENDIX H.

## INSTRUCTIONS TO PERSONS TRAVELING THROUGH YELLOWSTONE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,  
OFFICE OF SUPERINTENDENT OF THE YELLOWSTONE NATIONAL PARK,  
*Mammoth Hot Springs, Wyo., April 1, 1899.*

The following instructions for the information and guidance of parties traveling through the Yellowstone Park, having received the approval of the Secretary of the Interior, are published for the benefit of all concerned:

(1) *Fires*.—The greatest care must be exercised to insure the complete extinction of all camp fires before they are abandoned. All ashes and unburned bits of wood must, when practicable, be thoroughly soaked with water. When fires are built in the neighborhood of decayed logs, particular attention must be directed to the extinguishment of fires in the decaying mold. Such material frequently smolders for days and then breaks out into dangerous conflagration. Fire may also be extinguished where water is not available by a complete covering of earth well packed down.

(2) *Camps*.—No camp will be made at a less distance than 100 feet from any traveled road. Blankets, clothing, hammocks, or any other article liable to frighten teams must not be hung at a nearer distance than this to the road. The same rule applies to temporary stops, such as for feeding horses or for taking luncheon.

Camp grounds must be thoroughly cleaned before they are abandoned, and such articles as tin cans, bottles, cast-off clothing, and other debris must be either buried or taken to some place where they will not offend the sight.

(3) *Bicycles*.—Many of the horses driven in the park are unused to bicycles and liable to be frightened by them. The greatest care must therefore be exercised by their riders. In meeting teams, riders will always dismount and stand at the side of the road—the lower side if the meeting be on a grade. In passing teams from the rear, riders will ring their bell as a warning, and inquire of the driver if they may pass. If it appear from the answer that the team is liable to be frightened, they may ask the driver to halt his team and allow them to dismount and walk past.

Riders of bicycles are responsible for all damages caused by failure to properly observe these instructions.

(4) *Fishing*.—All fish less than 6 inches in length should at once be returned to the water with the least damage possible to the fish. No fish should be caught in excess of the number needed for food.

(5) *Dogs*.—When dogs are taken through the park they must be prevented from chasing the animals and birds or annoying passers-by. To this end they must be carried in the wagons or led behind them while traveling, and kept within the limits of the camps when halted. Any dog found at large in disregard of this section will be killed.

(6) *Grazing animals*.—Only animals actually in use for purposes of transportation through the park can be grazed in the vicinity of the camps. They will not be allowed to run over any of the formations, nor near to any of the geysers or hot springs; neither will they be allowed to run loose in the roads.

(7) *Miscellaneous*.—The carving or writing of names or other things on any of the mileposts or signboards, or any of the seats, railings, or other structures, or on the trees, will not be permitted.

Persons are not allowed to bathe near any of the regularly traveled roads in the park without suitable bathing clothes.

(8) Willful disregard of these instructions will result in the ejection of the offending person or persons from the park.

OSCAR J. BROWN,  
*Captain, First U. S. Cavalry, Acting Superintendent Yellowstone National Park.*

# YELLOWSTONE NATIONAL PARK AND FOREST RESERVE

FROM MAPS BY THE U. S. GEOLOGICAL SURVEY



Note: Step of about 1 mile on north (mountain) and about the same on west (mountain) side, not included in map.

Roads completed  
Roads projected

Roads and trails are indicated as follows  
Roads under construction  
Roads available but not now used  
by Park Transportation Companies

Trails  
Old wagon trails that might be  
used for saddle trails

Shoshone Camps  
Stations

Scale 1:100,000







